CUSTOMER NO.: 24498 **PATENT**
Attorney Docket No. PF030060
Final Office Action Date: 04/21/2010

Remarks/Arguments

Claims 1, 3 - 9 are pending. Independent claim 1 has been amended to more clearly and distinctly claim the subject matter that Applicants regard as their invention. Support for the amended claim can be found at least in Fig. 3 and paragraphs [0112] – [0114] and Figs. 8-12 and associated description. No new matter is believed to be added by the amendment.

Rejection of claims 1, 3 - 8 under 35 USC §103(a) as being unpatentable over Gerhmann (EP 1102430 A1) in view of Stajano et al, "The Resurrecting Ducking: Security Issues for Ad-hoc Wireless Networks" (hereinafter Stajano).

Applicants submit that for at least the reasons below, claim 1 is patentable over Gerhmann and Stajano, either singly or in combination.

Amended claim 1 recites the feature "...means for trust relationships synchronization with each device belonging to said community of network devices based on the stored information." Neither Gerhmann nor Stajano disclose such a feature.

The trust relationships synchronization of claim 1 is based on the stored information. This stored information includes the information about devices of the community having trust relationships with a device. The stored information also includes trust relationships about devices of the community having had trust relationships with a device in the past but now not trusted by the device. These trust relationships remain even after the device leaves the community and are used in the trust relationships synchronization step. The synchronization of trust relationship enables two devices to form a trust relationship if they have a trust relationship with a common third device.

Gehrmann does not disclose or suggest these features. In the system of Gehrman, the devices are to be present in order for a trust relationship to be established. "An advantage of the present invention is it is possible to achieve the necessary security associations needed for distributing and sharing information among a group of users that happens to be **at the same physical location**"

(Gerhman, paragraph [0014]) (emphasis added). This is further illustrated in Figs. 2 and 3 which show the establishment of trust relationships. In Fig. 2, there are several trust groups 202 – 205. Each node within a trust group has a mutual trust relation with the other nodes in the same trust group. The nodes can establish a trust relation with a node in another group. This is done through a messaging protocol between a server node and the nodes in the community. However, this messaging protocol requires that the nodes be within the same physical location or present to receive the messages and hence, form the trust relations. A device that is not present would not be able to form trust relationships nor be able to synchronize its trust relationships with other devices. As such, Gehrmann does not disclose or suggest the feature "...means for trust relationships synchronization with each device belonging to said community of network devices based on the stored information.

By contrast, the present invention provides for a device to form a trust relationship with another device if both devices have a trust relationship with a third device. For example, according to the present invention: if A trusts B, and B trusts C, then A can trust C, without any user intervention. Additionally: if A trusts B, then B leaves the community; A trusts C, then C leaves the community; B trusts D, then D leaves the community; and then a trust relationship is formed between C and D as soon as C and D join the community due to the transmission of information about the devices of the community having trust relationships with each devices of the community. Support for the above is provided, for example, on Figs. 8-12 and the associated description, wherein, Fig. 8 shows a trust relationship between A and B, Fig. 9 shows a trust relationship between A and D, Fig. 10 shows a trust relationship between B and C, Fig. 11 shows the trust between C and D (the "ABCD" scenario mentioned above), and Fig. 12 shows the trust relationship between A and C (without the intervention of B).

Stajano also fails to teach the features "...means for trust relationships synchronization with each device belonging to said community of network devices based on the stored information."

In Stajano, trust relations are established between the mother and one of the ducklings. A main user (mother) **must validate operations** whenever a new

device (duckling) is added to the community. For this reason, there is no mechanism to establish trust relations without the main user's intervention which is specifically contrary to the present invention. By contrast, in amended claim 1, the trust relationships synchronization is made by each device within the community and does not require a main user to synchronize the trust relations.

Furthermore, Stanjano does not keep trust relations of a device after the device leaves the community. In fact, Stanjano teaches away from retaining trust relations of a device after the device leaves the community. Stanjano teaches that the device needs to associate with its owner and not a neighbor (see page 5, paragraph 3.2: "If a householder owns a device,... then she will need to ensure that a new device she buys from a shop will obey her commands, and not her neighbor's.") As such, the trust relations of a device that left the community cannot be retained. Otherwise, when the device returns to the community it would associate with its former owner and not its new owner.

In view of the above, Applicants submit that the suggested combination of Gehrmann and Stajano fail to disclose each and every limitation of the pending claims, in particular the feature "...means for trust relationships synchronization with each device belonging to said community of network devices based on the stored information." Thus, the pending claims are patentably distinguishable over any combination of Gehrmann and Stajano.

Rejection of claim 9 under 35 USC §103(a) as being unpatentable over the combination of Gerhmann and Stajano in view of Fraser et al (U.S. Patent Pub. No. 2003/0131232).

Applicants respectfully traverse this rejection since Fraser is unable to remedy the deficiencies of Gerhmann and Stajano explained above in conjunction with claim 1. Accordingly, withdrawal of the rejection is respectfully requested.

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Conclusion

Having fully addressed the Examiner's rejections it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited.

It is believed that there are no additional fees due with regard to the filing of this response. However if there is an additional fee due, please charge the fee, or credit any overpayment, to Deposit Account No. 07-0832.

Respectfully submitted,
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